

## ABSTRACT

5 The present invention relates to a novel cardiac-specific transcription factor, myocardin. This molecule modulates the development and differentiation of cardiomyocytes and is a potent inhibitor of cell growth. Methods to exploit these observations are provided and include respecifying non-cardiac cells into cardiac cells, stimulating cardiac tissue regeneration, and methods for treating cardiomyopathies, myocardial infarction.